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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/102,939	06/23/98	BICHSEL	P/1336-101 M

002352
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WM02/0606

EXAMINER	
OPSASNICK, M	
ART UNIT	**PAPER NUMBER**
2645	7

DATE MAILED: 06/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/102,939	Bichsel
Examiner	**Art Unit**
Michael N. Opsasnick	2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Jun 23, 1998

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-29 is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-29 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2,5

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, claim 1 recites the limitation "the amplitude" in line 8 and "the result" in line 14. There is insufficient antecedent basis for this limitation in the claim. Furthermore, as per claim 1, the phrase "the result" is vague and indefinite. It is not clear as to what the "result" refers -- either to range D or range W.

As per claim 2, the recited limitation "the small values" does not have sufficient antecedent basis in the claim. Furthermore, the claim language "function is used whose slope" is vague and indefinite. It is not clear as to whether the nonlinear function is being used or the slope dW/dD is being used. Furthermore, the phrase "to obtain an emphasis of the small values

of said first range of value" is vague and indefinite. It is not clear as to which set of values this phrase refers. For example, "an emphasis" is referred to claim 1 lines 12-13, however, this "emphasis" refers to a "sensitive value range", however, this range is not referred to as a "first range of values"; there is a "first predetermined range D" in claim 1, however, there is no mention of "an emphasis" and a "first range of values". It is not clear as to which group of values and ranges that claim 2 refers (examiner notes that their are 2 ranges in claim 1, with a subemphasis of range values of value W).

As per claim 3, the claim language "said result" is vague and indefinite because it is not clear as to what the "result" refers -- either to range D or range W. Furthermore, as per claim 3, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the

present instance, claim 3 recites the broad recitation "fixed number of binary digits from 3 to 16 bits", and the claim also recites "preferably 4 to 8 bits" which is the narrower statement of the range/limitation.

As per claim 4, the claim language "each band signal only containing the content of the other band signals in a clearly attenuated form, more particularly attenuated to the half, or not at all" is vague and indefinite. It is not clear as to whether a) each band signal contain only other band signals, b) the original band signal containing the other band signal -- which would mean that the original band signal is the other original band signal, c) the band signal contains the other attenuated band signal, to the half, or no attenuation -- then the band signal would not be attenuated, but by definition, the band signal contains the attenuated band signal. Furthermore, it is not clear as to "half" represents -- amplitude, power, sample size; it is also not clear as to "or not at all" refers -- attenuation or no attenuation, or containing the other band signal or not. Lastly, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 4 recites the broad recitation "clearly attenuated form", and the claim also recites "more particularly attenuated to the half, or not at all" which is the narrower statement of the range/limitation.

Claims 5 and 8 are similarly rejected under 35 USC 112 2nd, as being vague and indefinite because a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

As per claim 7, the recite claim language "wherein the band signals are generated by a single or cascaded multiple", "or one of the output signal" renders the claim vague and indefinite. It is not clear as to what a single multiple splitting is defined as. Furthermore, it is not clear as to which output signals the claim is referring to.

As per claim 9, the claim language "the terms" lacks antecedent basis.

Claims 5-10 are further determined to be vague and indefinite under 35 USC 112 because these claims depend from claim 4, which has been determined to be vague and indefinite under 35 USC 112 2nd. Furthermore, these dependent claims fail to clarify the "vague and indefiniteness" of claim 4.

As per claim 11, the claim language "proportional to the energy content" is vague and indefinite. It is not clear as to what energy content is referred to. Furthermore, the claim language "or from a signal derived therefrom" is vague and indefinite. It is not clear as to where this signal is derived from. Furthermore, the claim language "preferably being generated by squaring" is vague and indefinite because a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

As per claim 15, the claim language "of the signal" is vague and indefinite. It is not clear as to what this signal is -- the energy signal, the differential energy signal, or the differential of the other signal derive therefrom.

Claims 13,14,16,17 are similarly rejected under 35 USC 112 2nd, as being vague and indefinite because a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

Claims 12-15 are further determined to be vague and indefinite under 35 USC 112 because these claims depend from claim 11, which has been determined to be vague and

indefinite under 35 USC 112 2nd. Furthermore, these dependent claims fail to clarify the "vague and indefiniteness" of claim 11.

As per claims 23 and 24, the claim language "the hearing sample processing", "the monitored programs","the hearing samples", and "the program samples" lack antecedent basis. Furthermore, claim 23 is vague and indefinite because there is no clear connection between the recited claim language above and the independent claim 1. It is not clear as to the relationship between the program samples, the hearing samples, and the calculation claimed in claim 1.

Claims 25,26, and 28 are further determined to be vague and indefinite under 35 USC 112 because these claims depend from claims 23 and 24, which has been determined to be vague and indefinite under 35 USC 112 2nd. Furthermore, these dependent claims fail to clarify the "vague and indefiniteness" of claims 23 and 24.

Claims 2-17,23-25, and 28 will not be examined with respect to prior art because the claims have been rendered vague and indefinite to the point that the examiner cannot justify an attempt to interpret the claims for issues with respect to prior art.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,18,19,27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kenyon et al (4450531).

As per claim 1, Kenyon et al (4450531) teaches a method for compression of an electric audio signal (abstract) wherein:

the amplitude of said audio signal [or of a derived digital or analog signal] is normalized to a predetermined range D (as normalized reference signal -- abstract, col. 4 lines 36-52);

said audio signal is mapped using a non-linear function onto a second determined range of values W in order to obtain an emphasis of sensitive value ranges (as referenced signal is zeroed and filled into a length R -- Fig. 1)

the result is stored in electronic memory form (as stored reference elements -- col. 4 lines 53-59).

As per claims 18,19,27 and 29, Kenyon et al (4450531) teaches a data carrier as television broadcast (col. 1 lines 7-12), and processor performing memory calculations and decision logic (Fig. 2; esp. subblocks 64 and 66).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenyon et al (4450531) in view Uehara (5754798).

As per claims 20 and 21, Kenyon et al (4450531) does not explicitly teach a power save mode when processing is not needed, however, Uehara (5754798) teaches a power save mode in which SMRAM states are compared to determine a power save mode (col. 21, line 60 - col. 22 line 4). Therefore, it would have been obvious to one of ordinary skill in the art of portable transmission devices to modify the teachings of Kenyon et al (4450531) with a power saving

mode because it would advantageously save the power supply energy and extend the operating time of the device (Uehara (5754798), Fig. 1b, col. 1 lines 10-14).

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenyon et al (4450531) in view Uehara (5754798).

As per claim 22, Kenyon et al (4450531) does not explicitly teach the exact structure/device to perform the calculations; however, Hoffberg et al (5901246) teaches a local processor located in a wristwatch (col. 80, lines 17-20), in which the device is used to broadcast information (col. 80, lines 17-20). Therefore, it would have been obvious to one of ordinary skill in the art of broadcasting signals to adapt the technique of Kenyon et al (4450531) into a wristwatch device because it would allow for the concealment of the device (col. 80 line 20).

Conclusion

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-6306

For informal or draft communications, please label "PROPOSED" or "DRAFT" on the front page of the communication, and do NOT sign the communication.

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Fan Tsang, can be reached at (703)305-4895. The facsimile phone number for this group is (703)308-6306.

Any inquiry of a general nature or relating to the status of this applications should be directed to the Group receptionist whose telephone number is (703)305-3900.

May 28, 2001

mno

FAN TSANG
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